

IN THE ABSTRACT OF THE DISCLOSURE:

Please replace the abstract with the following:

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A thin film transistor includes a second gate electrode that actively controls the threshold voltage of a semiconductor thin film channel and consequently controls the switching operation of the semiconductor thin film channel. The thin film transistor comprises a first control means, disposed on one side of the semiconductor thin film channel, that controls the semiconductor thin film channel based on voltage from its own wiring. In addition, a second control means, disposed on the opposite side of the semiconductor thin film channel, is added that actively controls the threshold voltage and switching operation of the semiconductor thin film channel based on a second voltage from its independent wiring.

REMARKS

Applicant respectfully requests reconsideration of the prior art rejections set forth by the Examiner under 35 U.S.C. § 103. Applicant respectfully submits that the prior art references of record, whether considered alone or in combination, fail to either teach or suggest the presently claimed invention.

Applicant's claimed invention is directed to an improved thin film transistor structure and method of manufacturing that overcomes the deficiencies of various prior art thin film semiconductors. As noted in the specification, one of the shortcomings of the prior art is the variation in the threshold voltage of the thin film semiconductors caused by the techniques used to produce a thin film semiconductor apparatus in which thin film semiconductors with lower threshold voltages are integrated. See, for example, Applicant's specification at pages 3-4. For example, the specification notes that plasma chemical vapor deposition, a process generally used to form a gate insulating film on a large-size substrate, deposits a film with a